



# EPE 2013 ECCE Europe

## 15th European Conference on Power Electronics and Applications

Lille, September 3 - September 5, 2013

## Exhibition and Sponsorship

**Technical Secretariat**  
European Power Electronics Association  
C/o Vrije Universiteit Brussel - IrW - ETEC  
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## WELCOME

The EPE Conference Committee invites you to come to EPE'13 ECCE Europe, the 15th European Conference on Power Electronics and Applications (and Exhibition), to be held in Lille, France. The conference follows previous successful conferences held in major university cities across Europe since 1985: Brussels, Grenoble, Aachen, Florence, Brighton, Seville, Trondheim, Lausanne, Graz, Toulouse, Dresden, Aalborg, Barcelona and Birmingham. This time, EPE'13 ECCE Europe will take place in a city located at the crossroads of Paris, Brussels and London, in an area renowned for its industrial background its university life and the warm welcome of its inhabitants.



Europe is a world leader in the field of Power Electronics, with well known research and industrial companies and many large academic laboratories in all main European countries. Since 1985, the EPE Conference has grown to become the largest in this field, regularly attracting the foremost technical contributors from industry and academia worldwide. In 2011, EPE Conference joined IEEE PELS society to become EPE-ECCE Europe Conference.

Power Electronics, as an enabling technology is becoming more and more important and is the basis for many industrial processes, for the rational use of energy, for new technologies in individual and mass transportation, areas that are rapidly growing requiring new concepts in order to fulfil cost, reliability, miniaturization as well as environmental requirements. The improvements of Power Semiconductor together with new advanced topologies and embedded systems are pushing Power Electronics towards high switching frequency and smaller, cheaper, and more efficient realisations, opening possibilities for new applications. Due to the new rules published by the EC on the electrical energy production, transport and distribution, and also to the technical problems arising from the interconnection of different kinds of distributed energy production systems, high precision and reliable controllers are needed.

One of the purposes of this Conference is to enable the presentation and discussion of developments in the field of Power Electronics, with attendees coming from all over the world. The Conference is a shop window, where up-to-date research activities and products are presented. A characteristic trend from previous EPE Conferences has been an increasingly large industrial participation, which allows for enhanced exchanges between academia and industry.



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In the Lille EPE ECCE conference, a wide range of topics will be broached with a particular focus on clean transportation systems: in 1983, Lille and its suburbs was the first area in the world equipped with a fully automated light metro named the "VAL", which was then exported to Seoul, Chicago, Turin... In 2013, to commemorate the 30<sup>th</sup> anniversary of this world first, special events will be proposed in collaboration with industrial and economic partners concerned by the VAL.

Moreover, EPE'13-ECCE Europe will be held in a Carbone Care philosophy: before and during the conference, we will work in order to reduce its ecological footprint, then an estimation of the CO<sub>2</sub> emission will be done and finally, a mitigation project will be proposed.



We are certain that the atmosphere in Lille will provide a stimulating work environment and generate companionship between scientists, students, and engineers from industry and academia.

By attending the conference, you may also have the opportunity to visit the old quarter of Lille (with its cobbled streets) and dating back to the 17th century, the numerous museums as well as the modern part of Lille with great shopping malls. You may also make the most

of the week end just before the conference and discover the greatest flea market in Europe -the Lille Braderie- which takes place every year and gathers more than one million visitors.

We invite you to come to Lille, to explore and admire a city with a rich historic past but also looking to the future. Lille- a vibrant city that offers a magnificent backdrop to the meeting and exchanging of ideas at the unique, international event of EPE'13 ECCE Europe.

***We are looking forward to welcoming you to Lille!***

Yours sincerely,



Prof. Betty LEMAIRE-SEMAIL  
Université Lille1-L2EP  
Conference General Chair



Prof Alain BOUSCAYROL  
Université Lille1-L2EP  
Conference co-chair



Prof Philippe LE MOIGNE  
Ecole Centrale de Lille-L2EP  
Conference co-chair



Prof. Benoît ROBYNS  
HEI-L2EP  
Conference co-chair

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## **OBJECTIVE OF THE COLLABORATION**

The following options for collaboration are offered to the companies intending on being acknowledged as sponsors of the **15th European Conference on Power Electronics and Applications**.

The intention of the Organising Committee is to ensure that all Sponsoring Companies receive the highest recognition in return for their generous support to the Congress. EPE ECCE Europe is an established and renowned Conference, and will be a useful meeting point for designers, users and engineers of the future, offering the perfect stage for the development of valuable relationships between companies and professionals.

### **Important dates**

Please take note that for requests received **before December 20, 2012** a 10% of the total amount will be deducted.

**BEFORE DECEMBER 20, 2012 : Discount of 10 % for Sponsorship & Exhibition**

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## EXHIBITION AND SPONSORSHIP

**10% discount until 20<sup>th</sup> December 2012**

The EPE conference is held every two years and attracts about 1000 delegates from all European Countries, Asia and America. Since 2011, EPE has joined IEEE PELS society and has become EPE-ECCE Europe. The delegates represent Industry and the major Academic Institutes involved in research into Power Electronics from across the world. Many major contributions come from industry in the form of Technical Workshops and Keynote presentations covering the major trends in Power Electronics for all its applications.

### EXHIBITION

Companies can rent modular booths or spaces of 6 m<sup>2</sup>, 12 m<sup>2</sup>, 18 m<sup>2</sup> or 24 m<sup>2</sup>

To give a good visibility to exhibitors, the exhibition will take place in Hall "Lille Métropole" of Lille Grand Palais, with the poster sessions and the coffee breaks, close to the lecture session rooms.

Rate per 6m<sup>2</sup>: **2 500 € excluding VAT**

Including:

- Carpet, one table, two chairs and a standard electrical connection
- Two exhibitors passes (coffee-break and lunch included)
- Four visitor tickets for the exhibition

Additional furniture will be available for additional cost

### SPONSORSHIP

Companies or organisations are welcome to sponsor the conference by sponsoring one of the social events (please ask for details), or based on the packages below.

Key sponsorship levels will be offered to companies according to their total sponsorship contribution.

**Diamond, 75 000 € (Only one company in this category)**

**Platinum, 50 000 €**

**Gold, 35 000 €**

**Silver, 15 000 €**

**Contributors, 6 000 €**



### **Diamond: 75 000 €**

- One exhibition space of 24m<sup>2</sup>
- Four EPE Conference registrations
- Eight visitor tickets for the exhibition
- Complimentary briefcase insert
- Company logo on sponsors page of Congress website
- Video space available in USB key for advertising
- Advertisement in the final programme and outline as exclusive Diamond sponsor - two pages of an A5 booklet
- Advertisement on the large poster outside the Lille Grand Palais

### **Platinum: 50 000 €**

- One exhibition space of 24m<sup>2</sup>
- Four EPE Conference registrations
- Eight visitor tickets for the exhibition
- Complimentary briefcase insert
- Company logo on sponsors page of Congress website
- Video space available in USB key for advertising
- Advertisement in the final programme and outline as Platinum sponsor –half and a page of an A5 booklet

### **Gold: 35 000 €**

- One exhibition space of 18m<sup>2</sup>
- Three EPE Conference registrations
- Six visitor tickets for the exhibition
- Complimentary briefcase insert
- Company logo on sponsors page of Congress website
- Video space available in USB key for advertising
- Advertisement in the final programme and outline as Gold sponsor- a page of an A5 booklet

### **Silver: 15 000 €**

- One exhibition space of 12 m<sup>2</sup>
- Two EPE Conference registrations
- Four visitor tickets for the exhibition
- Complimentary briefcase insert
- Company logo on sponsors page of Congress website
- Advertisement in the final programme - half a page of an A5 booklet

### **Contributor: 6 000 €**

- One exhibition space of 9m<sup>2</sup>
- One EPE Conference registration
- Four visitor tickets for the exhibition
- Complimentary briefcase insert
- Company logo on sponsors page of Congress website



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## **APPLICATION AND PAYMENT FOR SPONSORSHIP AND EXHIBITION**

### **Application**

Please complete the attached form and return it to the Congress Secretariat as soon as possible, (*Recommended date to benefit from a discount of 10 %: **before December 20, 2012***), or contact them by email to discuss your requirements further.

### **Confirmation and Payment**

Please fill in the enclosed form. Every effort will be made to assign the requested space. However, the organisation does not guarantee that the booth requested will be available and/or assigned. Assignments will be made only after receipt of the contract form and the appropriate payment (100% of total cost payable on application). Confirmation of your sponsorship and stand space will be mailed to you together with an accompanying invoice for the amount received.

### **VAT (TAX)**

All companies are required to pay VAT at the prevailing rate.

### **Cancellation**

In case of cancellation, the total amount paid will be charged as cancellation fees.

### **Insurance**

Companies participating in the Congress are required to take out appropriate insurance.

If you would like to comment any of the items included in this proposal or any further suggestions, please contact:

EPE Association  
Mireille Vankeerberghen  
c/o VUB – IR – ETEC  
Pleinlaan 2  
B-1050 Brussels  
Phone: 32 2 629 28 19  
Fax: 32 2 629 36 20  
E-mail: [mireille.epeassociation@gmail.com](mailto:mireille.epeassociation@gmail.com)





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## EXHIBITION APPLICATION

**BEFORE DECEMBER 20, 2012: Discount of 10% for Sponsorships & Exhibition**

**Company:** .....

**Address:** .....

**Zip Code:**..... **City:** .....

**Country:**.....

**Tel:** .....

**E-Mail:**.....

**VAT N°** .....

**Contact Person:** .....

**Position:** .....

**Name that should appear on the booth front:**.....

**Request For Space:**

**Number of sqm** ..... **Preferred Booth[s]:**.....

**Order N° ( if special from your company, please attach ) :** .....

**An invoice will be sent you.**

*On behalf of the Company, I consent and undertake to comply with the exhibition rules and my obligations to exhibit from the moment I sign this contract.*

*Signature & Company Stamp:*

**This form should be completed and returned as soon as possible to:**

EPE Association  
Mireille Vankeerberghen  
c/o VUB – IR – ETEC  
Pleinlaan 2  
B-1050 Brussels  
Phone: 32 2 629 28 19  
Fax: 32 2 629 36 20  
E-mail: [mireille.epeassociation@gmail.com](mailto:mireille.epeassociation@gmail.com)

or

Local Secretariat  
Claire Cardon  
Bâtiment P2, Cité scientifique  
Université Lille1  
59655 Villeneuve d'Ascq, FRANCE  
Phone : 33 3 20434235  
E-mail: [info@epe2011.com](mailto:info@epe2011.com)



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## GENERAL INFORMATION

### CONFERENCE VENUE:

Lille Grand Palais  
1, Boulevard des Cités-Unies  
59777 EURALILLE  
France

### DATES:

From September 3 to September 5, 2013

### WEB SITE::

[www.epe2013.com](http://www.epe2013.com)

### TECHNICAL SECRETARIAT: Exhibition & Sponsorship

#### **EPE Association**

C/o Vrije Universiteit Brussel - IrW – ETEC  
1050 Brussels, Belgium  
Tel: +32 / (0)2 - 629.28.19. / Fax: +32 / (0)2 - 629.36.20.  
E-Mail: [mireille.epeassociation@gmail.com](mailto:mireille.epeassociation@gmail.com)

### LOCAL SECRETARIAT:

#### **Université Lille1**

Claire CARDON  
Bâtiment P2, Cité Scientifique  
Villeneuve d'Ascq  
59655 France  
Email: [info@epe2013.com](mailto:info@epe2013.com)

### Hotel accommodation

Web site link: [www.epe2013.com](http://www.epe2013.com)

### WELCOME COCKTAIL:

Tuesday September 3, 2013

### GALA DINNER:

Wednesday September 4, 2013

### OFFICIAL LANGUAGE:

The official language of the Conference is English.  
Simultaneous translation will not be provided



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## ORGANIZATION AND VENUE

The European Power Electronics and Adjustable Speed Drives community will gather in Lille, Northern France, from 3 to 5 September 2013 to exchange views on research progresses and technological developments in the various topics described hereunder. The EPE 2013 ECCE Europe conference is sponsored by the EPE Association and IEEE PELS Society; it will be held in the Congress Centre “Lille Grand Palais” located downtown.

## AIMS OF CONFERENCE

EPE ECCE Europe is the place for specialists in power electronics, systems and components to present papers and attend sessions on state-of-the-art technology in this challenging and evolutionary sector. The conference aims to be a meeting forum for researchers, developers and specialists from the industry. Papers are encouraged on all topics described hereunder for interdisciplinary discussions of new ideas, research, development, applications and the latest advances in the field of power electronics and adjustable speed drives.

## TOPICS

In accordance with the European Commission’s Action plan, the aim of energy policy seeks to enable the European Union to reduce greenhouse gases by at least 20%, to reduce energy consumption by 20%, and increase to 20% the share of renewable energies in energy consumption by 2020 (compared to the respective values in 1990). The demand for electricity is continuously growing and will continue to do so at a much faster rate than other energy sources. Today more than 20% of final energy consumption in the EU is electrical energy, but this is predicted to grow significantly in the next few decades. Efficient energy usage and increased generation of electricity from renewable sources are the main concerns for today’s society. Power electronics systems and adjustable speed drives - also referred to as Energy Conversion and Conditioning Technologies (ECCT) - are the enabling and often only possible technologies to help us face these challenges. All fields of the electrical world will be affected by the required changes, starting from the generation of clean, CO<sub>2</sub>-neutral electrical energy, up to the most remote applications in industry, households, transport systems and portable applications. To fit this changing environment, the EPE 2013 conference will address a full list of topics, with a special focus on clean transportation systems. Effectively, 2013 will be the 30<sup>th</sup> anniversary of the first automatic subway “VAL”, opened in Lille in 1983!



## **LIST OF TOPICS EPE 2013 ECCE EUROPE**

### **I. COMPONENTS AND SYSTEMS RELATED ISSUES**

#### **A. DEVICES, PACKAGING AND SYSTEM INTEGRATION**

##### **Topic 1: Active devices**

- 1a. MOS controlled silicon power devices (e.g. IGBT, MOSFET)
- 1b. Silicon power diode and thyristor devices
- 1c. Monolithic integration, system on chip
- 1d. Wide bandgap power semiconductor devices (e.g. SiC, GaN, GaAs)
- 1e. Simulation, modelling and virtual prototyping
- 1f. Control and protection of power devices

##### **Topic 2: Passive components, system integration & packaging**

- 2a. Passive components and integrated passive components
- 2b. Materials and interconnection technologies
- 2c. Cooling, thermal management and thermal design
- 2d. Multichip module packaging technologies
- 2e. Reliability of components and integrated subsystems
- 2f. Simulation and modelling of integrated components and subsystems

##### **Topic 3: Power system integration**

- 3a. Modularity and standardization of converters
- 3b. Power electronic system integration methodology
- 3c. Stability and reliability of cascaded converters
- 3d. Integrated applied power systems
- 3e. EMC/EMI issues for integrated power systems, reliability issues

#### **B. POWER CONVERTERS TOPOLOGIES AND DESIGN**

##### **Topic 4: Soft switching converters and control**

- 4a. Soft switching converters: resonant, ZVS, ZCS
- 4b. Soft switching converters: circuits and control

##### **Topic 5: Hard switching converters and control**

- 5a. High power multilevel converters and voltage regulator modules
- 5b. Matrix converters
- 5c. Emerging topologies
- 5d. Failure tolerant systems or converters

#### **C. MEASUREMENT AND CONTROL**

##### **Topic 6: Modulation strategies and specific control methods for static converter**

- 6a. Converter control sets and modulation strategies
- 6b. Converter control, current/voltage control

##### **Topic 7: Application of control methods to electrical systems**

- 7a. Optimal control, robust control, non-linear control
- 7b. Fuzzy control, neuronal control
- 7c. Open and closed loop system control, fault handling strategies

##### **Topic 8: Measurements and sensors**

- 8a. Sensors and transducers
- 8b. Measurement methods and techniques
- 8c. Software for measurements and virtual instruments
- 8d. Estimation techniques
- 8e. System diagnoses



## **D. ELECTRICAL MACHINES AND DRIVE SYSTEMS**

### **Topic 9: Motion control, robotics, special drives, haptics, communication in drive systems**

- 9a. Servo drives; stepping and linear drives
- 9b. Electro-active systems
- 9c. Robotics and haptics
- 9d. Communications systems for drives, integration of MC, NC and PLC in drive systems
- 9e. Modelling, simulation and design methods of motion control systems

### **Topic 10: Electrical Machines**

- 10a. Synchronous, permanent magnet synchronous and brushless d.c. motor
- 10b. Induction machines
- 10c. Switched reluctance machines
- 10d. Linear machines
- 10e. Integrated electrical machines

### **Topic 11: Adjustable speed drives**

- 11a. General purpose a.c. and d.c. drives
- 11b. Converter machine/mains interactions
- 11c. Adjustable speed drive systems, Reliable and Fault-Tolerant drives
- 11d. Combined multi-motor drive systems

### **Topic 12: High performance drives**

- 12a. DTC and other modulation strategies for high performance drives
- 12b. Advanced Control and other high performance drive systems issues
- 12c. Sensorless techniques

### **Topic 13: Energy efficiency; energy saving issues in system components**

- 13a. Energy efficiency; energy saving issues in power electronics components
- 13b. Energy efficiency; energy saving issues in electrical machines and drives
- 13c. Special developments to achieve energy efficiency; energy savings

## **II. APPLICATIONS RELATED ISSUES**

### **E. APPLICATIONS OF POWER ELECTRONICS IN GENERATION OF ELECTRICAL ENERGY, RENEWABLE ENERGY SYSTEMS, WIND, PV, TIDAL, WAVE, ETC...**

#### **Topic 14: Converters for rotating and linear generators**

- 14a. Doubly fed generator control
- 14b. Full power generator converter control
- 14c. Fault ride through methods
- 14d. Excitation systems and their control
- 14e. Simulation and emulation of generator systems
- 14f. Reliability issues

#### **Topic 15: Non-rotating power generation and storage systems**

- 15a. Fuel cell converters and their control
- 15b. Photovoltaic converters and their control
- 15c. Converters for energy storage and their control
- 15d. Reliability issues

### **F. APPLICATIONS OF POWER ELECTRONICS IN TRANSMISSION AND DISTRIBUTION OF ELECTRICAL ENERGY**

#### **Topic 16: Power electronics in transmission and distribution**

- 16a. Microgrid control
- 16b. HVDC transmission
- 16c. FACTS (Incl. STATCOM, SVC) and distribution FACTS
- 16d. Active filtering and other advanced grid side converter control
- 16e. Low frequency harmonics and EMC (less than 9 kHz) mitigation



- 16f. Power electronic protection devices for transmission and distribution
- 16g. Reliability issues

## **G. APPLICATIONS OF POWER ELECTRONICS IN USERS DEVICES/PROCESSES**

### **Topic 17: Power supplies**

- 17a. Uninterruptible Power Supplies (UPS)
- 17b. DC Power Supplies (hard&soft switching)
- 17c. Distributed Power Supplies
- 17d. Voltage Regulated Modules (VRM)
- 17e. EMI & over-voltage protection
- 17f. Electronic ballasts and solid state lighting
- 17g. High power density system design
- 17h. Contactless Power Supply
- 17i. Power Factor Correction (PFC)

### **Topic 18: Electrical systems in Road Vehicles**

- 18a. Electric propulsion systems for electrified vehicles
- 18b. Control strategies in hybrid vehicles
- 18c. Power converters for electrified vehicles
- 18d. On-Board energy management: fuel cells, storage, components, systems and control
- 18e. Communications and data transmission
- 18f. EMC related phenomena
- 18g. Modelling, simulation and design methods, reliability issues

### **Topic 19: Electrical systems in aerospace, space, surface and marine transport (not road)**

- 19a. Power electronics in aerospace and space applications
- 19b. Rail vehicles
- 19c. Marine applications (Offshore and ships)
- 19d. On-Board energy management: generation (f.e. fuel cells), storage, components, systems and control
- 19e. Communications and data transmission
- 19f. EMC related phenomena
- 19g. Modelling, simulation and design methods, reliability issues

### **Topic 20: Industry specific energy conversion and conditioning technologies**

- 20a. Energy conversion and conditioning technologies in the industry (cement, steel, paper, textile, mining, etc...)
- 20b. Power electronics and drives in buildings and household applications, including lighting and professional devices
- 20c. Power electronics and drives for low cost applications
- 20d. Electroheat and power electronics
- 20e. Reliability issues, diagnostics

### **Topic 21: Energy conversion and conditioning technologies in physics research and related applications**

- 21a. Power converters for particle accelerators
- 21b. Application of power electronics to pulsed power (f.e. nuclear fusion research, microwaves, etc...)
- 21c. Other related applications

## **H. EDUCATION IN ELECTRICAL ENGINEERING**

### **Topic 22: Education in electrical engineering**

- 22a. Education methodology
- 22b. Education tools and e-learning
- 22c. Simulation software and design tools
- 22d. Education policy in Europe





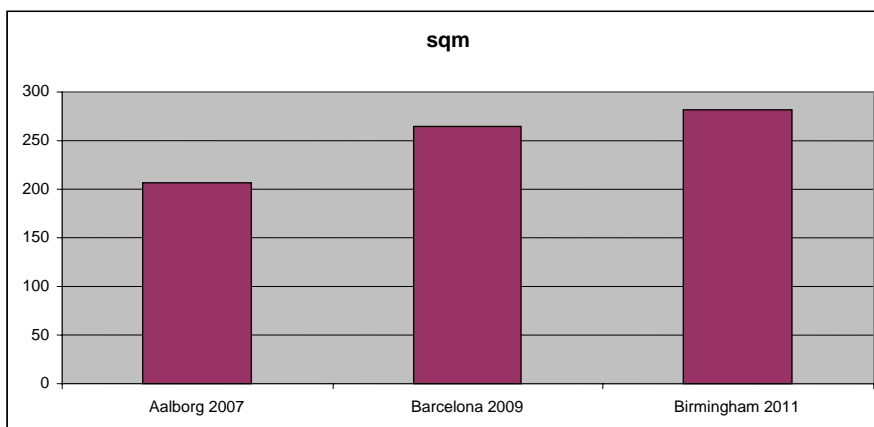
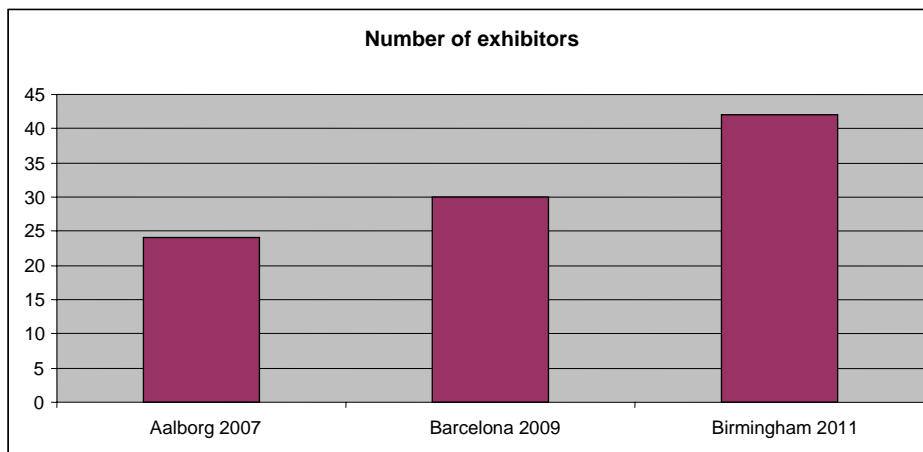
## EPE ASSOCIATION CONFERENCES

### Previous Editions:

. 1985:	Brussels (Belgium).	N <sup>o</sup> of participants:	650
. 1987:	Grenoble (France).	N <sup>o</sup> of participants:	750
. 1989:	Aachen (Germany).	N <sup>o</sup> of participants:	850
. 1991:	Firenze (Italy).	N <sup>o</sup> of participants:	1.000
. 1993:	Brighton (United Kingdom).	N <sup>o</sup> of participants:	750
. 1995:	Seville (Spain).	N <sup>o</sup> of participants:	800
. 1997:	Trondheim (Norway).	N <sup>o</sup> of participants:	975
. 1999:	Lausanne (Switzerland).	N <sup>o</sup> of participants:	1040
. 2001:	Graz (Austria).	N <sup>o</sup> of participants:	850
. 2003:	Toulouse (France).	N <sup>o</sup> of participants:	1.000
. 2005:	Dresden (Germany).	N <sup>o</sup> of participants:	805
. 2007:	Aalborg (Denmark).	N <sup>o</sup> of participants:	875
. 2009:	Barcelona (Spain).	N <sup>o</sup> of participants:	1130
. 2011:	Birmingham (UK).	N <sup>o</sup> of participants:	1002

### Statistics from previous EPE conferences:

#### Exhibitors





### Conference attendees

